



USAID Nawiri Learning Brief: Participatory Epidemiology Findings

Background

This brief presents some key findings from a participatory analysis of the causes and seasonality of malnutrition in children and mothers. The exercise was carried out in North Horr and Loiyangalani wards in Marsabit County and Cherab and Chari wards in Isiolo county, between February and April 2021. The study involved a joint analysis with women from 46 villages using two participatory epidemiology (PE) methods viz. a monthly calendar and causal diagram. Based on the analysis, participants were asked to identify their intervention preferences to address both child and maternal malnutrition. The results are being used to inform programming areas for phase II of Nawiri project.

Summary Findings and Lessons Learned

The overall finding of the study was that women position the problem of malnutrition within a context of changing and gendered livelihoods, marked seasonality of livelihood systems, and physical remoteness with limited infrastructure or public services. These factors combine in ways which often place women and children at very high risk of acute malnutrition. From the women's perspective, the main causes of malnutrition for both mothers and children are:

- **Some coping strategies and adaptations may be unsustainable and/or coercive.** Individuals, household and communities are most likely to turn to these maladaptive options when they have few or no other alternatives (Young 2009). Examples include the heavy exploitation of natural resources like firewood harvesting and charcoal production, cattle raiding, or joining an armed group. Inter-household examples include early marriage of girls to reduce economic pressure upon a family, to increase social capital, or in an attempt to procure protection for the individual.
- **Gender issues:** Participants identified a whole set of gender issues that directly or indirectly contribute to maternal and child malnutrition. This included issues around control over livestock assets and income, and decisions around household food and medical expenditures. Women spend a considerable amount of time on economic and livelihoods' activities which yield minimal returns in terms of income or nutrition. More specifically, women's workload is associated with the neglect of children particularly during the dry season, which in turn is linked to poor child hygiene. There are also a number of social norms and cultural taboos around diet, exclusive breastfeeding and child spacing that are potentially harmful to both mothers and children. The women also associated domestic violence and marital issues with malnutrition. All these issues represent a psychological burden on women, who are typically trying to support their family often with minimal support from their husbands. The women expressed this burden in terms of stress or anxiety which they described as an illness whereby the mother cannot take care of herself or her children, and this leads to malnutrition.
- **Human disease** was identified as one of the most important factors contributing to child and maternal malnutrition. Mostly this was associated with diarrhea, which increases during the dry season. Participants associated diarrhea with poor water quality, poor child hygiene practices when the children are left without proper care for long periods of time, and the consumption of certain types of 'hunger' foods. Other diseases associated with malnutrition included malaria, pneumonia, HIV, tuberculosis, kala-azar, anemia and respiratory problems. The women made a connection between illness and loss of appetite, as well as an ability to absorb nutrients. They also made associations between not having a healthy diet (being undernourished) and lowered immunity to disease and infection.
- **Lack of income**, this was mostly in reference to participants' inability to purchase nutritious foods, specifically high-quality proteins and fats during the dry season. The remoteness of the study areas along with limited infrastructure means that the cost of basic foods is considerably higher than in more connected parts of the country. There are also very few meaningful income earning opportunities, particularly for women, many of whom depend on selling firewood and charcoal during the dry season in order to make ends meet. Although the lack of income was largely associated with food purchases, other costs such as schooling, and health care are often prioritized over purchasing more nutritious foods. Women therefore have to make difficult decisions on how best to spend the little money they have, which often comes at the expense of a balanced diet. This factor is also affected by livestock losses, as livestock represent the main source of income in these areas.

Participants In all four locations, the results show malnutrition increasing during the dry season with a number of potential contributing factors all working in concert, at the same time. High-quality proteins from livestock (or fish) are in short supply. Women's workload increases, partly as a result of them expanding on time consuming activities to earn enough income to purchase food. At the same time their husbands are not around to help take care of the children, as they are in the dry season grazing areas. This is accompanied by an increase in the prevalence of diarrhea due to a number of factors including deteriorating water quality.

The analysis also revealed that women are knowledgeable about nutritious foods and hygiene practices and their relationship to health and nutrition. However, they lack the income, time or resources to effectively take advantage of this knowledge. They are also aware of the benefits of exclusive breastfeeding and pregnancy spacing, but cultural norms take precedence over this knowledge.

Applying the Findings and Lessons Learned

- From the perspective of the participants, the obvious way to address malnutrition is to support livelihoods and create meaningful income earning opportunities, particularly for women. Most of the interventions identified by participants either directly or indirectly focus on these objectives. These included access to credit, restocking and support to income generating activities. However, there are limited opportunities for livelihood activities that provide reasonable incomes for reasonable effort, and which enable women to care for children. In part, this situation relates to the persistent problem of weak infrastructure and physical remoteness, and hence the economic (in)feasibility of starting or sustaining small businesses. Proposed livelihoods support will therefore need careful joint assessment of the feasibility of these interventions. For example, although restocking was a preferred intervention, would this result in women spending more time away from their children while herding? Or would the men insist on taking these animals to the dry season grazing areas? These are the kinds of issues that need to be interrogated further. Similarly, when identifying potential income generating activities, careful analysis will be needed to ensure that these are viable.
- Interventions to raise awareness around a healthy diet or improved hygiene practices are also unlikely to have much impact. In general, women were aware of the need to provide an adequate diet for children and themselves, and of the need for basic hygiene and clean water. However, if they don't have the time to take proper care of their children, or they don't have access to clean water, or money to buy soap or nutritious food, this knowledge does them little good. The same applies to activities to raise awareness around exclusive breastfeeding or family planning. The women already have the information and cautioned that gender programming that excludes men often results in a backlash which can put them at risk of being beaten by their husbands.

Applying the Findings and Lessons Learned

- Intervention priorities also varied across the study area depending on the different challenges and opportunities associated with specific locations. So too did the relative importance of the various factors that contribute to malnutrition. This underscores the importance of designing context specific interventions to address malnutrition or, alternatively, providing more flexible forms of assistance such as improving access to credit which can be utilized in different ways. What might work in one village will not necessarily work in another village, even within fairly close proximity. To be effective, Nawiri interventions will need to be guided by detailed dialogue at community level and careful joint assessment of the feasibility, likely benefits, and other issues.
- Overall, the participatory approach worked well. It enabled the relatively rapid, cost-effective collection of rigorous data on the causes and seasonality of acute malnutrition, in comparison with more conventional methods. It also allowed for the identification of demand driven and contextually appropriate interventions, albeit with the caveat that these need further location specific dialogue, interrogation and refinement. The approach also provided systematic data on the more basic causes of malnutrition often missed when more conventional methods are used. This included issues around gender, livelihood systems, seasonality and the interrelationships between the different factors that contribute to acute malnutrition.

The lessons learned included below stem from the findings and from the evidence and knowledge gaps listed above.

Key Lessons Learned	Adaptation or implication	Link to the DIP or TOC
1. Maternal and child malnutrition peaks during the dry season mainly due to the absence of high-quality proteins	1. Implement specific interventions that will improve production and the availability of milk, meat and fish during the dry season.	P1 & P4
2. Priority interventions to address malnutrition focused on support to livelihoods and income generating activities.	2. Implement interventions to improve access to capital/credit, and business training/ mentorship support to establish small businesses and alternative livelihoods, including women's group formation and restocking.	P1
3. Various gender issues and social norms contribute to malnutrition, including issues around control over assets and income, decision-making and the time burden placed on women, particularly during the dry season.	3. Implement interventions that allow women to earn reasonable income for reasonable effort and reduce their work burden during the dry season (e.g., Graduation Model, SILC, and improved access to clean water etc.)	P3 & P4



[See the full CRS USAID Nawiri Participatory Epidemiology Findings Report for all sources cited.](#)

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